

80620

SOV/81-59-5-16175

15.2200

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 5, p 352 (USSR)

AUTHORS: Tsynkina, V.M., Gul'ko, N.V.

TITLE: Refractories From Strontium and Barium Compounds

PERIODICAL: Sb. nauchn. tr. Vses. n.-i. in-ta ogneuporov, 1958, Nr 2 (49), pp 297 - 318

ABSTRACT: The possibility was investigated of obtaining highly refractory articles based on Sr and Ba compounds. It was established that SrO can be used in the production of refractories (R) (burning at  $1,750^{\circ}\text{C}$ , grain size  $< 60\mu$ , porosity after burning 26 - 27%). The products are hydrated in air. It is recommended that admixtures of BeO and  $\text{Al}_2\text{O}_3$  be added to the products of SrO to avoid this. R cannot be obtained from BaO by the usual method, since BaO is hydrated intensively in air, and Ba hydroxide, in admixture with BaO, melts at a temperature of  $< 1,000^{\circ}\text{C}$  when heated, which leads to fusion of the products. Zirconates of Sr and Ba are synthesized in the solid phase at a temperature of  $1,000^{\circ}\text{C}$  (tables of the properties of products made of Sr and

Card 1/ 2

30625

SOV/81-59-5-16175

Refractories From Strontium and Barium Compounds

Ba zirconates are submitted). R made of Sr and Ba zirconates are highly refractory and are not hydrated during burning at 1,750°C. The ortho-silicates of Sr and Ba were synthesized, the refractoriness was 1,750 and 1,910°C, respectively. R made of these have a high density and are not subject to hydration in air. The aluminates of Sr and Ba were synthesized; their properties were studied and R articles were produced from them. It is established that tristrontium and tribarium aluminates belong to the group of non-refractory compounds. Monoaluminates and hexaaluminates of Sr and Ba are not subject to hydration in air. The monoaluminate of Sr (porosity 1%) has a refractoriness of 1,800°C. R from zirconates, silicates and aluminates of Sr and Ba can be produced by briquetting with double burning of the briquet and intermediate crushing (size of the grain  $< 60\mu$ ).

I. Mikhaylova

Card 2/2



1ST AND 2ND CATEGORIES										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH CATEGORIES									
<p>Some properties of fused clays. V. M. Tsyukina.  <i>Zhurnal</i> 8, 128-34 (1937). Arc-fused refractory clays            contain about 60% mullite; this can be presumably in-            creased by reducing a part of the <math>\text{SiO}_2</math> to Si and sepg. 1-            Fe-Si. High-grade refractories can be obtained in a            way. E. R. Stefanowski</p>																													
<p>ASH-154 METALLURGICAL LITERATURE CLASSIFICATION</p>																													
1ST CATEGORY										2ND CATEGORY										3RD CATEGORY									
1ST CATEGORY										2ND CATEGORY										3RD CATEGORY									

1000  
L. J. F. T. M.

Thermostable magnesite refractories with a spinel mortar. A. S. BEREZHNOI AND V. M. TSYNKINA. *Sbornik Materialov po Voprosu Ognestoykoi Prom.*, 1940, No. 2, pp. 38-102; *Khim. Referat. Zhur.*, 4 [9] 110-11 (1941).  
—Results of experiments show the possibility of producing high-quality thermostable refractories from Saitkin magnesite. A study of the formation of various spinels at high temperature, primarily through reactions in the solid phase, showed that alumina and chrome spinels are the most suitable. A technological procedure is recommended based on the study of the interdependence between the properties of fired magnesite and the methods of its production. A review of the literature and a description of technological works are included. See "Production..." *Ceram. Abs.*, 18 [10] 245 (1939); "Spinel..." *ibid.*, 19 [3] 68 (1940).  
M Ho.

Bu. aba

B1-9 Glass; Ceramics;  
Refractories

Highly refractory oxides. V. M. Tsykhina. (Kislovod, 1946, 2, Nos. 2-3, 66; *Bull. ceram. Abstr.*, 1949, 58A).— $\text{ThO}_2$  has a low thermal conductivity, but a high coeff. of thermal expansion; it is thus sensitive to spalling. It forms a carbide readily. Notes are given on the stabilization of  $\text{ZrO}_2$ . Satisfactory results were obtained with  $\text{ZrO}_2$  bricks in an open air furnace. In an open air furnace, results were obtained with  $\text{ZrO}_2$  bricks in an unspecified position in an open air furnace.  
R. B. CLARK.

563

*Refractories*

334. FORSTERITE REFRACTORIES FROM SERPENTINES - Y. M. Tsyukina (Ognesovoy, 11, No. 6, 25, 1946). Forsterite refractories based on Russian serpentines were made up from calcined serpentine and magnesite, from sintered mixtures of the two, and from synthetic forsterite. Trials in the back wall of an open-hearth furnace and in the sintering zone of a rotary cement kiln proved that the forsterite refractories were equal to magnesite in performance in the open-hearth furnace where they were not exposed to silica drip from the roof, and were superior to the usual lining bricks in the cement kiln. Final failure in both furnaces was due to excessive shrinkage of the bricks near the working face. Absorption of lime and recrystallization of the forsterite were observed up to 4 in. behind the working face, and it is suggested that recrystallization was the primary cause of the shrinkage and consequent flaking. Addition of chromite is put forward as a possible cure for the shrinkage. The three types of forsterite product were not found to differ greatly in performance.

PROCESSES AND PROPERTIES INDEX																									
1ST AND 2ND ORDERS													3RD AND 4TH ORDERS												
<p>CA</p> <p>Forsterite refractories from serpentinites. V. M. Tsynkin. <i>Ogneuproy</i> 1946, No. 6, 35-36. Photographs, curves, and discussion of forsterite refractories are presented. Serpentinites of the Bedensk region are suitable for refractories. The major cause of wear in Martens furnaces is the mech. cleavage of fused zones of the finished surface caused by collective recryst. of forsterite. The use of these refractories in cement kilns showed the formation of <math>2\text{CaO} \cdot \text{SiO}_2</math> in the working zones on cooling of the kiln with consequent destructive fragmentation of the surface of the lining; therefore the use of forsterite refractories requires the use of continuous firing without layover periods of cooling. G. M. K.</p>																									
<p>ASH-15.4 METALLURGICAL LITERATURE CLASSIFICATION</p> <p>1500-1599 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990</p>																									



1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
S																			
FORSTERITE REFRACTORIES FROM SERPENTINE. V.M. Tsynkina. (Ogneupory, 1946, vol 11, no. 6, pp 26-36; American Ceramic Abstracts, 1948, May 1, p 105).																			
ASH-51A METALLURGICAL LITERATURE CLASSIFICATION																			
FROM STRUCTURE										FROM COMPOSITION									
SERIES NO. 1										SERIES NO. 2									
SERIES NO. 3										SERIES NO. 4									
SERIES NO. 5										SERIES NO. 6									
SERIES NO. 7										SERIES NO. 8									
SERIES NO. 9										SERIES NO. 10									
SERIES NO. 11										SERIES NO. 12									
SERIES NO. 13										SERIES NO. 14									
SERIES NO. 15										SERIES NO. 16									
SERIES NO. 17										SERIES NO. 18									
SERIES NO. 19										SERIES NO. 20									
SERIES NO. 21										SERIES NO. 22									
SERIES NO. 23										SERIES NO. 24									
SERIES NO. 25										SERIES NO. 26									
SERIES NO. 27										SERIES NO. 28									
SERIES NO. 29										SERIES NO. 30									
SERIES NO. 31										SERIES NO. 32									
SERIES NO. 33										SERIES NO. 34									
SERIES NO. 35										SERIES NO. 36									
SERIES NO. 37										SERIES NO. 38									
SERIES NO. 39										SERIES NO. 40									
SERIES NO. 41										SERIES NO. 42									
SERIES NO. 43										SERIES NO. 44									
SERIES NO. 45										SERIES NO. 46									
SERIES NO. 47										SERIES NO. 48									
SERIES NO. 49										SERIES NO. 50									
SERIES NO. 51										SERIES NO. 52									
SERIES NO. 53										SERIES NO. 54									
SERIES NO. 55										SERIES NO. 56									
SERIES NO. 57										SERIES NO. 58									
SERIES NO. 59										SERIES NO. 60									
SERIES NO. 61										SERIES NO. 62									
SERIES NO. 63										SERIES NO. 64									
SERIES NO. 65										SERIES NO. 66									
SERIES NO. 67										SERIES NO. 68									
SERIES NO. 69										SERIES NO. 70									
SERIES NO. 71										SERIES NO. 72									
SERIES NO. 73										SERIES NO. 74									
SERIES NO. 75										SERIES NO. 76									
SERIES NO. 77										SERIES NO. 78									
SERIES NO. 79										SERIES NO. 80									
SERIES NO. 81										SERIES NO. 82									
SERIES NO. 83										SERIES NO. 84									
SERIES NO. 85										SERIES NO. 86									
SERIES NO. 87										SERIES NO. 88									
SERIES NO. 89										SERIES NO. 90									
SERIES NO. 91										SERIES NO. 92									
SERIES NO. 93										SERIES NO. 94									
SERIES NO. 95										SERIES NO. 96									
SERIES NO. 97										SERIES NO. 98									
SERIES NO. 99										SERIES NO. 100									

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS																																																	
PROCESSING AND PROPERTIES INDEX																																																											
<div style="float: left; width: 50px; text-align: center;">B</div> <div style="float: right; width: 50px; text-align: center;">22</div> <div style="clear: both;"></div> <p>Highly Refractory Oxides. V. M. Tsynkina. Henry Brucher (Altadena, Calif.), Translation No. 2102, 11 pages. Condensed from <i>Kislorod (Oxygen)</i>, v. 3, nos. 2-3, 1940, p. 50-60. Gives extensive data on zirconium oxide and brief information on beryllium and thorium oxides. Discusses applications.</p>																																																											
<div style="display: flex; justify-content: space-between;"> <div> <p>ASR-5LA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM SYMBOLIC</p> </div> <div> <p>FROM ROMAN</p> <p>811131 GIN GIN 131</p> </div> </div>																																																											
<table border="1" style="width: 100%;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																																								

FORSTERITE REFRACTORIES FROM SERPENTINE. V. M. Teyn-  
kina. ~~Onaurody~~. [1] 6 25-35 (1946). -- Forsterite re-  
fractories made in the Soviet Union are based chiefly on  
raw materials obtainable in the Ural Mountains. These ex-  
periments were concerned with serpentines of the Baden deposits  
in North Caucasus. The serpentines analyzed  $\text{SiO}_2$  36.83,  
 $\text{Al}_2\text{O}_3 + \text{Cr}_2\text{O}_3$  2.36,  $\text{Fe}_2\text{O}_3$  3.00,  $\text{FeO}$  2.22,  $\text{CaO}$  0.67,  $\text{MgO}$  40.10,  
and loss on ignition 14.76%. Externally the serpentine is a  
dense ore, grayish green in color. Bulk specific gravity varied  
from 2.54 to 2.67, porosity 2.4 to 5.6%, and refractoriness  
1590° to 1600°C. About 80 to 90% of serpentine occurs in the  
form of chrysotile, and 3 to 6% as antigorite; carbonates and  
magnesite are also found in the ore. Forsterite refractories were  
made from the serpentines according to two processes: (1)  
Serpentine lumps (300 to 500 mm.) were calcined in a chamber  
furnace at 1450°C. and then ground to 3-mm. grains. A charge  
comprising 70% calcined serpentine + 25% metallurgical magnesite  
+ 5% caustic magnesia was used to make brick under a pressure

of 200 kg./cm.<sup>2</sup>; the brick were dried at 40° and fired in a regenerative furnace at 1600 C. (holding for 6 to 7 hr.). (2) A charge comprising 75% uncalcined serpentine and 25% caustic magnesia was ground so that at least 85% would pass a sieve having 4900 openings per cm.<sup>2</sup>, and briquettes were made under a pressure of 50 kg./cm.<sup>2</sup>; the briquettes were fired at 1450 C. (holding for 10 hr.). The briquettes, which consisted chiefly of small crystals of forsterite, were ground to 4 mm. and mixed with 10% of uncalcined serpentine (< 0.09 mm.), and this charge was used to make brick according to process 1. Brick made by both methods were subjected to service tests in open-hearth furnaces is cleavage of the fused working zones which is caused by the collective recrystallization of the forsterite. Additional fusion of the working zones takes place with the brick made by both processes; porosity was reduced from 26.2 to 6.9% for brick made by the first method and from 11.8 to 3.9% for those made by the second method. In the case of cement kilns the additional fusion and cleavage were also noted, but to a lesser extent; the brick became saturated with CaO and showed the presence of mullite and rarely dicalcium silicate and also about 5% of vitreous substance. When the kiln was cooled the dicalcium silicate caused the crumbling of the surface of the lining.

B.Z.K.

COMMON ELEMENTS										COMMON VARIABLES INDEX									
MATERIALS INDEX										PROCESSING AND PROPERTIES INDEX									
<p>647. Highly Refractory Oxides, by V. M. Tsynkina. Kislod 3, Nos. 2-3, p. 56-60, 1946. (Available in English as Translation No. 2102, Henry Bratcher, Altadena, Calif.)</p> <p>Extensive data on zirconium oxide and brief information on beryllium and thorium oxides are given. Applications of these oxides as refractories are discussed.</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										1ST AND 2ND LETTERS									
3RD AND 4TH LETTERS										5TH AND 6TH LETTERS									

Br. Abs.

Br-4, Glass, Ceramics

**Forsterite refractories from serpentines.** V. M. Tsypkina (Ogneupor., 1946, 11, No. 6, 23; Brit. Ceram. Abs., 1947, 84a).—Refractories were made from calcined serpentine and magnesite, from slatered mixtures of the two, and from synthetic forsterite. Trials in the back wall of an open-hearth furnace and in the slatering zone of a rotary cement kiln showed forsterite refractories to be equal to magnesite in performance in the furnace where they were not exposed to  $\text{SiO}_2$  drip from the roof, and better than the usual lining bricks for the kiln. Final failure in both cases was due to excessive shrinkage of the bricks near the working face. Absorption of  $\text{CaO}$  and recrystallization of forsterite were observed up to 6 in. behind the working face; recrystallization was probably the primary cause of shrinkage and subsequent flaking. Addition of chromite is suggested as a cure for shrinkage. The three types of forsterite product did not differ much in performance.

R. B. CLARK.

FORSTERITE REFRACTORIES FROM SERPENTINE. V. M. Iny-  
kina. Obzorny, [1] 6 25-35 (1946). — Forsterite re-  
fractories made in the Soviet Union are based chiefly on  
raw materials obtainable in the Ural Mountains. These ex-  
periments were concerned with serpentines of the Baidar deposits  
in North Caucasus. The serpentines analyzed  $\text{SiO}_2$  36.83,  
 $\text{Al}_2\text{O}_3 + \text{Cr}_2\text{O}_3$  2.36,  $\text{Fe}_2\text{O}_3$  3.00,  $\text{FeO}$  2.22,  $\text{CaO}$  0.67,  $\text{MgO}$  40.10,  
and loss on ignition 14.76%. Externally the serpentine is a  
dense ore, grayish green in color. Bulk specific gravity varied  
from 2.54 to 2.67, porosity 2.4 to 5.6%, and refractoriness  
1590° to 1600° C. About 80 to 90% of serpentine occurs in the  
form of chrysotile, and 3 to 8% as antigorite; carbonates and  
magnesite are also found in the ore. Forsterite refractories were  
made from the serpentines according to two processes: (1)  
Serpentine lumps (300 to 500 mm.) were calcined in a chamber  
furnace at 1450° C. and then ground to 3-mm. grains. A charge  
comprising 70% calcined serpentine + 25% metallurgical magnesite  
+ 5% caustic magnesia was used to make brick under a pressure

of 200 kg./cm.<sup>2</sup>; the brick were dried at 40° and fired in a regenerative furnace at 1600° C. (holding for 6 to 7 hr.).

(2) A charge comprising 75% uncalcined serpentine and 25% caustic magnesia was ground so that at least 85% would pass a sieve having 4900 openings per cm.<sup>2</sup>, and briquettes were made under a pressure of 50 kg./cm.<sup>2</sup>; the briquettes were fired at 1450° C. (holding for 10 hr.). The briquettes, which consisted chiefly of small crystals of forsterite, were ground to 4 mm. and mixed with 10% of uncalcined serpentine (<0.09 mm.), and this charge was used to make brick according to process 1.

Brick made by both methods were subjected to service tests in open-hearth furnaces in cleavage of the fused working zones which is caused by the collective recrystallisation of the forsterite. Additional fusion of the working zones takes place with the brick made by both processes; porosity was reduced from 26.2 to 6.9% for brick made by the first method and from 11.8 to 3.9% for those made by the second method. In the case of cement kilns the additional fusion and cleavage were also noted, but to a lesser extent; the brick became saturated with CaO and showed the presence of mullite and rarely dicalcium silicate and also about 5% of vitreous substance. When the kiln was cooled the dicalcium silicate caused the crumbling of the surface of the lining.

B.Z.K.



TSYNKINA, V.M.; GAODU, A.N.; MARKEVICH, Ye.P.; KUKUSHKIN, A.P.

Testing of synthetic patching powders in the repair of open-  
hearth furnace bottoms. Sbor.nauch.trud. UNIIO no.5:202-209 '61.  
(MIRA 15:12)

(Open-hearth furnaces—Design and construction)  
(Firebrick—Testing)

BADAR'YAN, G.G.; TYUTIN, V.A.; CHEREPUSHKIN, S.D.; ZUZIK, D.T.;  
 KHODASEVICH, B.G.; FRAYER, S.V.; GUSAROV, Ye.I.; KAZANSKIY,  
 A.M.; KASSIROV, L.N.; KARAYEV, S.A.; ABRAMOV, V.A.;  
 VASIL'YEV, N.V.; BUGAYEV, N.F.; SAPIL'NIKOV, N.G.; KASTORIN,  
 A.A.; RUDNIKOV, V.N.; YAKOVLEV, V.A.; PEREMYKIN, V.I.;  
 ISAYEV, A.P.; KUZ'MICHEV, N.N.; IL'IN, S.A.; PRONIN, V.A.;  
 LUK'YANOV, A.D.; SHAKHOV, Ya.K.; IL'ICHEV, A.K., kand. sel'-  
 khoz. nauk; KOGAN, A.Ya.; TSYNKOV, M.Yu.; BABIY, L.T.;  
 GORBUNOV, I.I.; KOVALEV, A.M.; ROMANCHENKO, G.R.; BRODSKAYA,  
 M.L., red.; IVANOVA, A.N., red.; GUREVICH, M.M., tekhn. red.;  
 TRUKHINA, O.N., tekhn. red.

[Economics of agriculture] Ekonomika sotsialisticheskogo sel'-  
 skogo khoziaistva; kurs lektsii. Moskva, Sel'khozizdat, 1962.  
 710 p. (MIRA 15:10)

(Agriculture—Economic aspects)

TSYNKOV, Maks Yur'yevich; OVCHINNIKOV, N.G., red.; PONOMAREVA, A.A.,  
tekhn. red.

[Increasing production and reducing costs of livestock products  
on collective and state farms] Uvelichenie proizvodstva produktsii  
zhivotnovodstva i snizhenie ee sebestoimosti v kolkhozakh i sov-  
khozakh. Moskva, Ekonomizdat, 1961. 191 p. (MIRA 15:7)  
(Stock and stockbreeding--Costs)

TSYNKOV, Maks Yur'yevich; Prinyali uchastiye: PILETSKIY, M.S.; MUL'NER, Yu.S.; GROMOV, A.M.; ABAKUMOV, L.S.; NECHIPORUK, L.P., red.; BALLOD, A.I., tekhn. red.

[Organization of animal husbandry as exemplified by farms of the non-Chernozem and central Chernozem zones] Organizatsiia zhivotnovodstva; na primere khoziaistv nechernozemnoi i tsentral'noi chernozemzon. Moskva, Gos. izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 303 p. (MIRA 14:8)

(Stock and stockbreeding)

TSYNKOV, M.Yu., kand.sel'skokhozyaystvennykh nauk

Some economic problems in animal husbandry. Zhivotnovodstvo  
21 no.4:26-34 Ap '59. (MIRA 12:5)  
(Stock and stockbreeding)

ROGOZIN, G.M.; TSYNKOV, M.Yu., kand. sel'skokhozyaystvennykh nauk; LOBANOVA, A.A., kand. sel'skokhozyaystvennykh nauk; HUMYANTSOVA, T.V.;  
 THUDOLYUBOV, B.A., kand. sel'skokhozyaystvennykh nauk; KUDRYAVTSEV, P.N., doktor sel'skokhozyaystvennykh nauk; LITOVCHENKO, G.R., kand. sel'skokhozyaystvennykh nauk; KOLOBOV, G.M.; IOFE, M.Sh.; KHITENKOV, G.G., doktor sel'skokhozyaystvennykh nauk; BADIR'YAN, G.G., doktor sel'skokhozyaystvennykh nauk; IVANOVA, A.A.; MAKAROV, A.P.; ALTAYSKIY, I.P.; SPIRIDONOV, A.L., kand. sel'skokhozyaystvennykh nauk; ZHUYKOV, G.G.; BANNIKOV, N.A., red.; IVANOVA, A.N., red.; ZUBRILINA, Z.P., tekhn. red.

[Economics and organization of stockbreeding on collective farms]  
 Ekonomika i organizatsiya zhivotnovodstva v kolkhozakh, Moskva,  
 Gos. izd-vo sel'khoz. lit-ry, 1958. 550 p. (MIRA 11:7)  
 (Stock and stockbreeding)

TSYNKOV, Maks Yul'yevich

[Economics of animal husbandry in the Moscow area] Ekonomika  
zhivotnovodstva Podmoskovnogo raiona. Moskva, Mosk. rabochii,  
1958. 71 p. (MIRA 13:7)  
(Moscow Province--Stock and stockbreeding)

TSYMKOV, YAKH YOF'YEVICH

722.1 1  
.T8

Ekonomicheskaya Effektivnost' Otrasley V Kolkhozakh (Economic Effectiveness  
of the Divisions in Kolkhozes)  
Moskva, Sel'Khozgiz, 1957.  
93 P. Tables.

MEA



TSYNKOV, M.Yu., kand. sel'skokhozyaystvennykh nauk.

Production cost of milk and measures for its reduction. Zhivotnovodstvo  
20 no.4:18-24 Ap '58. (MIRA 11:3)

(Dairying)

TSYNKOV, M.

Agriculture - Vologda (Province)

Inter-district distribution of types of farming. Sots. sel'khoz 23 No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

TERENT'YEV, M.L.; OSAD'KO, M.P.; BRAGINSKIY, B.I.; SLOBODIN, V.M.; FISHMAN,  
Z.A.; LEVIN, I.Ye.; TSYNKOV, M.Yu.; BADIR'YAN, G.G.; TYUTIN, V.A.;  
ABRAMOV, V.A.; FRAYER, S.V.; KOBCHIKOVA, I.A.; KARNAUKHOVA, Ye.I.;  
OBOLENSKIY, K.P.; IL'IN, S.A.; GAVRILOV, V.I.; FREYDMAN, S.M.;  
KALASHNIKOVA, V.S., redaktor; LAPIDUS, M.A., redaktor; RAKITINA,  
Ye.D., redaktor; FEDOTOVA, A.F., tekhnicheskij redaktor

[Manual for students of collective farm economy] V pomoshch'  
izuchaiushchim ekonomiku kolkhozov. Moskva, Gos. izd-vo selkhoz.  
lit-ry, 1956. 423 p. (MIRA 10:1)  
(Collective farms)

TSYNKOV, Maks Yur'yevich; IVANOVA, A.N., redaktor; VMSKOVA, Ye.I.,  
tekhnikheskiy redaktor

[Economic effectiveness of sections of collective farms; a study]  
Ekonomicheskaya effektivnost' otraslei v kolkhozakh; opyt izucheniya.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 93 p. (MIRA 10:7)  
(Agriculture--Costs)

1. TSYNKOV, M. Yu.
2. USSR (600)
4. Collective Farms
7. "Correct combination of field crops and animal husbandry on collective farms."  
V. A. Kazanskiy. Reviewed by M. Yu. Tsynkov. Sov. zootekh. 7, no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. TSYNKOV, M. Yu
2. USSR (600)
4. Cattle
7. Stall system for keeping cattle, Sov. zootekh, 7, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. TSYNKOV, M. Yu.

2. USSR (600)

4. Farm Management

7. "Correct combination of field crops and animal husbandry on collective farms."  
V. A. Kazanskiy. Reviewed by M. Yu. Tsynkov. Sov. zootekh. 7 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

1. TSYMKOV, M. YU.
2. USSR (600)
4. Collective Farms
7. Correct ways of coordinating the branches of a consolidated consolidated collective farm Sov. zootekh./ No. 4, 1952  
7

Kandidat Sel'skokhozyaystvennykh Nayk

9. Monthly List of Russian Accessions, Library of Congress, Jun 1952.  
UNCLASSIFIED



TSYNKOV, M. YU.

Collective Farms

Plans for developing the many-sided economy of the "Zhivotnovod" Collective Farm.  
Sots. zhiv. 14 no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 195<sup>2</sup>~~6~~, Uncl.

TSYNKOV, M. Yu

Organizatsiya zhivotnovodstva v kolkhozakh (Management of livestock raising on collective farms, ed. by) L. I. Drakin, M. Yu. Tsynkov i L. M. Zal'tsman, Moskva, Sel'khozgiz, 1952.

518 p. illus., diags., tables.

At head of title: Trekhletniye kolkhoznyye agrozootekhnicheskiye kursy.

N/5  
727  
.D7

TSYNKOV, M.

Stock and Stockbreeding

Increasing the collective farm's income from animal husbandry. Sots. sel'khoz. 24,  
No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

TSYNKOV, M. Yu.

Feeding and Feeding Stuffs

Using feeding stuffs on progressive collective farms. M. Yu. Tsynkov., Korm. baza,  
2, no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

TSYNKOV, M. YU

Dairing

Using feeding stuffs on progressive collective farms. Korm.baza., 2, no.12, 1951

Monthly List of Russian Accessions, Library of Congress, May 1952, UNCLASSIFIED.



TSYNKOVA, O. E. Cand Phys-Math Sci -- (diss) <sup>interesting</sup> "Transient flow of gas in canals  
of finite length." Mos, 1959. 5 pp (Mos Order of Lenin and Order of Labor  
Red Banner State Univ im Lomonosov. Mechanical Math Faculty), 150 copies  
(KL, 52-59, 116)

TSYNKOV, Valeriy Mendelevich; ZUS'MAN, Il'ya Iosifovich; ZUBKOVA,  
E.S., red.

[Safety manual on the tensioning of reinforcement] Tekh-  
nika bezopasnosti pri natiashenii armatury. Moskva,  
Transport, 1964. 30 p. (MIRA 17:5)



AUTHOR: Tsynkova, O. E. (Moscow) SOV/179-59-3-3/45

TITLE: The Motion of a Gas Against a Variable Counter-Pressure in Channels of a Definite Length (Dvizheniya gaza v kanalakh konechnoy dliny pri peremennom protivodavlenii)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 3, pp 15-24 (USSR)

ABSTRACT: A problem is described where the gas is flowing in channels having apertures in their walls (Fig 1). The system of equations describing the motion is given as Eq (1), where

- p - pressure,
- $\rho$  - density,
- u - velocity,
- T - temperature,
- S - entropy,
- $i_0$  - full heat capacity per unit of mass of the gas,
- t - time,
- x - coordinate

Card 1/4  $\Sigma$  - cross-section of the channel

q - output of gas per unit of wall length,

SOV/179-59-3-3/45

The Motion of a Gas Against a Variable Counter-Pressure in Channels of a Definite Length

$u^*$  and  $i_0^*$  - mean mass,

$p^*$  - mean pressure.

These equations can be shown as Eq (2) for the perfect gas and  $\sum = \text{const}$ , with the variables  $p, \rho, u$  becoming  $a, \vartheta, u$ , where  $a$  - sound velocity and  $\vartheta = p/\rho^\gamma$  ( $\gamma$  - adiabatic index). Eq (2) can be presented in the linear form, Eqs (4), (5), for the conditions Eq (3). Its solution can be defined as Eq (6), where  $X = x$  and the functions  $F_1, F_2, F_3$  are determined from Eq (11).

The limiting conditions can be derived for two cases:  
1) the motion as in Fig 1. At the cross-section  $x = 0$  there is a jump of density with the Mach number  $M_{10}$  in front and  $M_{20}$  behind. Since the jump is not stationary, the relation (12) can be derived (index 1 - disturbance added to the jump from the supersonic frequency of flow, index 2 - disturbance propagated behind the jump,  $D$  - velocity of jump in relation to the sound velocity  $a_{20}$  of the flow behind the jump,

Card 2/4

SOV/179-59-3-3/45

The Motion of a Gas Against a Variable Counter-Pressure in Channels of a Definite Length

$x^*$  - coordinate of the jump,  $\mu$ ,  $\nu$ ,  $\kappa$  etc - coefficients affected only by  $M_{10}$  and  $\gamma$  calculated from Eq (13). It is assumed that the flow in front of the jump is not disturbed, i.e.  $F_{11}(\xi_1) = F_{31}(y_1) = 0$  in Eq (12). Then the limiting conditions for  $x = x^*$  will take the form of Eq (14) which, in the linear form, can be written as Eq (15). By taking  $u$  and  $a$  in Eq(15) from Eqs (8) and (9), the formulae (16) and (17) are derived for the initial conditions (18). The solution of Eq (16) is given as Eq (19). The coefficients  $\nu_0$  and  $\xi_0$  in Eq (19) can be called double coefficients of reflection. Fig 2 illustrates the relations of  $\nu_0$  and  $\xi_0$  to  $M_{10}$

for  $\gamma = 1.4$ .

2) The velocity of flow is below that of sound, the linear equation of which is defined as Eq (21). Since the pressures of the flow in this case are equal, then for  $p = 0$  and  $x = 1$  the basic equation can be expressed as Eq (22) and its solution as Eqs (23), (25). If the

Card 3/4

SOV/179-59-3-3/45

The Motion of a Gas Against a Variable Counter-Pressure in Channels of a Definite Length

resonance is considered (Eqs 27 and 29), then the solution will take the form of Eq (3). The amplitudes of variations of pressure, enthalpy and the jump respectively are defined by Eq (31). These are illustrated in Fig 3.

The influence of external effects on the jump of density can be defined as Eq (32) which describes the velocity  $D$  (Eq 17). An example is given which is divided into two parts: first the general formulae are presented in the order of calculation (Eqs 33, 34 and 35) and next the results obtained from numerical data (foot of p 24) are presented.

There are 3 figures and 3 references, 1 of which is Soviet and 2 English.

SUBMITTED: December 25, 1958

Card 4/4

RAUSHENBAKH, Boris Viktorovich; TSYNKOVA, O.E., red.; MURASHOVA, N.Ya., tekhn.  
red.

[Vibration combustion] Vibratsionnoe gorenie. Moskva, Gos. izd-vo  
fiziko-matem. lit-ry, 1961. 500 p. (MIRA 14:8)  
(Combustion, Theory of) (Vibration)

67587  
SOV/179-59-5-5/41

10.3000  
AUTHOR:

Tsyinkova, O.E. (Moscow)

TITLE:

On Self-Excited Oscillations<sup>1/</sup> in Supersonic Diffusers<sup>23</sup>

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 5, pp 19-26 (USSR)

ABSTRACT: It is stated that in most previous investigations of supersonic diffuser stability, the low frequency oscillations (so-called pumping) were examined by formulating qualitative assumptions, partly confirmed by experimental data. Analysis is usually applied to cycles of fully established oscillations and is carried out on the assumption that the causes of the phenomenon are unknown. Thus, Dailey Charles L. ("Supersonic Diffuser Instability", - Ref 1), on the basis of experimental observations, assumes a certain sequence in the pumping process. An analysis of the process of filling the diffuser chamber is formulated in quasi-stationary terms, without consideration of the propagation of the waves in the internal flow passages. The differential equation reduces to an ordinary first order equation without periodic solutions. An additional specification of the maximum and

Card 1/4

67587

SOV/179-59-5-5/41

On Self-Excited Oscillations in Supersonic Diffusers

minimum pressures in the diffuser chamber produces semi-empirically the duration of the pumping cycle. Later work is mentioned wherein the criteria of stability are mathematically formulated. It is concluded that established pumping with a correct periodicity is possible only when the critical cross-section of the diffuser exit is below the value corresponding to the conditions of maximum pressure build-up. Although the conclusion is verified by many experiments, the method of small perturbations used does not easily fit the pumping phenomenon. Oswatish and Teipel (Ref 3) study the motion in which the beginning and the cyclic sequence of pumping is basically associated with the propagation of waves in the internal diffuser channel and the conditions at its end. The analysis of the pumping case is covered mathematically in the same manner as motion with decaying oscillations. However, the formulation of a general criterion to divide these stable and unstable conditions was not possible because the solution was obtained numerically. The present work solves the problems of self-excited oscillations by the method of linear travelling waves. For a cylindrical diffuser, the general solution

Card 2/4

67587

SOV/179-59-5-5/41

On Self-Excited Oscillations in Supersonic Diffusers

of linearised equations for the one-dimensional flow of an ideal gas with plane waves is recalled, expressing the deviations of velocity, sound velocity and entropy in terms of certain combinations of arbitrary functions which have to be fitted to the initial and end conditions. The stability criteria are finally obtained directly from the solutions. An example is quoted wherein, with a diffuser channel of 1 m length and a speed of sound of the undisturbed flow in the channel amounting to 400 mps, pumping frequencies of 31, 28 and 25 cps were found. The throttling of the critical cross-section at the diffuser channel outlet leads to a condition of decaying oscillations or a condition of pumping according to the value of the sum of the reflexion coefficients at the open entry into the channel for the pressure and entropy waves, respectively. This leads to the separation of stable and unstable operating conditions which are characterized by the values of the tangent of the diffuser characteristic curve slope. The Pitot type diffuser (without central body) normally works under stable conditions. Pumping conditions are obtained in diffusers with a central body. ✓

Card 3/4



67587

SOV/179-59-5-5/41

On Self-Excited Oscillations in Supersonic Diffusers

Apparently, this is explained by the presence of viscosity and cannot be explained within the framework of ideal gas theory. There are 2 figures and 4 references, 2 of which are Soviet, 1 English and 1 German.

SUBMITTED: May 9, 1959

Card 4/4

TSYHMAN, A.Yu.

Solving diagnostic problems in course on internal medicine. Fel'd.  
1 akush. 21 no.2:53 P '56. (MLRA 9:5)

1. Bryanskoye meditsinskoye uchilishche.  
(MEDICINE--STUDY AND TEACHING)

SOV/68-58-12-8/25

AUTHOR: Tsynovnikov, A.S., Shemeryankin, B.V., Shvarts, S.A.  
and Bogoyavlenskiy, K.A.

TITLE: The Determination of Size Analysis of Coke on Screens  
with Square and Round Mesh (Opredeleniye sitovogo  
sostava koksa na sitakh s kvadratnymi i kruglymi  
otverstiyami)

PERIODICAL: Koks i Khimiya, 1958, Nr 12, pp 25-28 (USSR)

ABSTRACT: The relationship between the size analysis of coke on  
screens with square and round mesh, namely the ratio of  
D : S (diameter of square mesh to diameter of round mesh)  
for cokes of various origin was investigated. The  
experimental results are shown in figs 1, 2, and Tables  
1, 2. Coefficients (K) for recalculating size  
distribution from screens with round mesh to screens

Card 1/2

SOV/68-58-12-8/25

The Determination of Size Analysis of Coke on Screens with Square and Round Mesh

with square mesh for various types of coke are given in Table 3 and mesh sizes for round and square mesh screens for various size fractions in Table 4.

There are 4 tables and 2 figures.

ASSOCIATIONS: VUKhIN and UKhIN

Card 2/2

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320003-3**

**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320003-3"**

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320003-3**

**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320003-3"**

TSYNOVNIKOV, A.S.; SHEMERYANKIN, B.V.; LIKHOGUB, Ye.P.; MUSTAFIN, F.A.;  
BERKUTOVA, G.I.

Increasing the charges of coke ovens during leveling. Koks.1  
khim. no.2:19-22 '60. (MIRA 13:5)

1. Vostochnyy uglekhimicheskiy institut (for TSynovnikov,  
Shemeryankin). 2. Teplotekhnstantsiya (for Likhogub). 3. Nizhne-  
Tagil'skiy metallurgicheskiy kombinat (for Mustafin, Berkutova).  
(Nizhniy Tagil--Coal--Carbonisation)

SHEMERYANKIN, B.V.; TSYNOVNIKOV, A.S.; RYTCHENKO, A.I.

Bulk weight of coke. Koks i khim. no.8:30-33 '61. (MIRA 15:1)

1. Chelyabinskiy metallurgicheskiy zavod (for Shemeryankin).
2. Vostochnyy uglekhimicheskiy institut (for TSynovnikov).
3. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Rytchenko).  
(Coke)



TSYNOVNIKOV, A.S.; MUSTAFIN, F.A.; GUSEV, A.P.

Preparation of coals and blended coal charges for coking. Koks i  
khim. no8:10-12 '56. (MIRA 10:1)

1. Vostochnyy uglekhimicheskiy institut (for TSynovnikov). 2. Nizhne-  
Tagil'skiy koksokhimicheskiy zavod.  
(Coal preparation)

TSYNOVNIKOV, A.S.; MUSTAFIN, F.A.

Utilizing coals with low caking power. Koks.1 khim.no.5:6-9 '56.  
(Coal) (Coke) (MLRA 9:10)

SPERANSKAYA, G.V.; TSYNOVNIKOV, A.S.; STROMBERG, B.I.

Experimental coking of coals enriched by centrifugal separation.  
Koks i khim.no.4:8-11 '56. (MIRA 9:9)

1.Institut geryuchikh iskepayemykh Akademii nauk SSSR (for Speranskaya).2.Vestechnyy uglekhimicheskiy institut (for TSynovnikov).3. Ukrainaskiy uglekhimicheskiy institut (for Shtromberg).  
(Coal--Carbonization)

GRYAZNOV, N.S. ; SHEMYRYANKIN, B.V. ; TSYNOVNIKOV, A.S.

Classification of coke according to types and sizes. Koks i khim.  
no.10:22-26 '60. (MIRA 13:10)

1. Vostochnyy uglekhimicheskiy institut.  
(Coke)

TSYP, V. N.

TSYP, V. N.; CHERNAYA, L. A.; ZAKHARINA, D. I.

"Serotherapy of Experimental Gas Gangrene"

Annaly Mechnikovskogo Institut, Vol. 3, No. 1, 1936, pp 91-94  
(Annals ((or Records)) of the Mechnikov Institute)

in

Report on the Research Work of the All-Union Institute of Experimental Medicine  
imeni A. M. Gor'kiy for 1933-1937, "Medgiz", Moscow-Leningrad, 1939 (book)—p 86

ACC NR: AP7006802 (A) SOURCE CODE: UR/0418/66/000/006/0084/0086

AUTHOR: Korenevskiy, Ye. Ya. (Engineer); Tsypak, V. I. (Engineer); Semenov, R. A. (Engineer)

ORG: None

TITLE: Effect of annealing and vibrotumbling on the durability of parts made from OT4-1 titanium alloy after surface grinding

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 6, 1966, 84-86

TOPIC TAGS: titanium alloy, grinding, durability, annealing, surface finishing

ABSTRACT: Flat specimens of OT4-1 sheet titanium alloy 7 mm thick were studied for the effect of annealing and vibrotumbling on surface quality and durability after surface grinding. The grinding operation was done on a 372B unit with a K340M2B wheel at a speed of 25 mm/sec to a depth of 0.05 mm with a longitudinal feed of 7 m/min removing 0.3 mm from each side. An emulsion was used as coolant. After grinding, the flat surfaces of the specimen showed a class 6-7 finish, a microhardness of 250-270 kg/mm<sup>2</sup> and a cold-hardened layer 0.02-0.025 mm deep. Four sets of specimens were prepared: 20 specimens were left as they were after grinding; 15 specimens were annealed; 15 were subjected to vibrotumbling; 15 were subjected to vibrotumbling with subsequent annealing. The annealing was done at 540°C for 0.5 hour followed by cool-

Card 1/2 UDC: 669.295.620.178.3

ACC NR: AP7006802

ing in air. The vibrotumbling was done in GZh-1 anticorrosion fluid using steel balls 2 mm in diameter with a vibration speed of 0.96 m/sec at a vibration overload factor of 10.1 for 1.5 hours. It was found that annealing improves surface finish by about one class. Vibrotumbling also produced the same improvement in surface finish. Annealing reduces the microhardness of the surface both after grinding and after vibrotumbling. Vibrotumbling increases microhardness by 60 kg/mm<sup>2</sup>. Vibrotumbling also improves the regularity of microhardness as compared with the initial specimens. It was also found that surface grinding results in a considerable reduction in the strength properties of OT4-1 titanium alloy. The fatigue limit of the initial material was reduced from 34-40 to 21 kg/mm<sup>2</sup> by grinding. The fatigue limit was increased by 31.9% in specimens subjected to annealing after grinding. Vibrotumbling raises the fatigue limit by 76.6% as compared with the initial specimens after grinding. Annealing after vibrotumbling removes the strength produced by this operation. Orig. art. has: 1 figure, 1 table.

SUB CODE: 13, 11/ SUBM DATE: None

Card 2/2

USSR Diseases of Farm Animals - Diseases Caused by Viruses  
and Rickettsiae.

R-3

Abs Jour : Ref Zhur - Biol., No 14, 1958, 64654

Author : Tsypanov, D.M.

Inst : -

Title : Experience in the Control of Foot-and-Mouth Disease in  
Northern Reindeer.

Orig Pub : Veterinariya, 1957, No 12, 65-70

Abstract : The basic measure in combatting foot-and-mouth disease was  
that of a rigid quarantine of the suspected herds. The  
use of the VIEV vaccine on 46 thous. reindeer did not pro-  
duce positive results. The peculiarities of the clinical  
and pathologicoanatomic picture in reindeer are described.

Card 1/1



757/19000 D.M.

USSR / Farm Animals. Reindeer.

6-3

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105739.

Author : Tsypanov, D. M.

Inst : Scientific Research Institute of Agriculture  
of the Extreme North.

Title : Organization of Communication with Distant  
Reindeer Breeding Brigades in Komi ASSR.

Orig Pub: Byul. nauchno-tekhn. inform. n.-i. in-t s.-kh.  
Krayn.

Abstract: No abstract.

Card 1/1

*TSYPANOV D.M.*  
TSYPANOV, D.M., zasluzhennyy veterinarnyy vrach, Komi ASSR.

Eradicating foot-and-mouth disease among reindeer. Veterinariia  
34 no.12:65-70 D '57. (MIRA 11:1)  
(Reindeer--Diseases and pests)  
(Foot-and mouth disease)

ROZHKOV, V.M.; TSYPER, V.A.; KRIVONOS, G.A.; CHERNOSHTAN, V.K.; SAPRYKIN, A.A.

Mastering the production of drill pipes with inner tips made of the  
B95 alloy. TSvet. met. 36 no.9:79-84 S '63. (MIRA 16:10)

ROZHKOV, V.M.; SHOFMAN, L.A.; ROZANOV, B.V.; KUZ'KO, Yu.P.; PONGIL'SKIY, N.F.;  
LIVANOV, V.A.; LUCHIN, V.V.; KUZNETSOV, K.I.; TSYFER, V.A.;  
CHERNOSHTAN, V.K.

Points for pipe presses. Biul.TSIICHM no.9:52<sup>1/60</sup> (MIRA 15:4)  
(Pipe mills--Equipment and supplies)

L 13284-66 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k) EWP(a)/  
ACC NR: AP6001105 (N) SOURCE CODE: UR/0136/65/000/012/0074/0076

AUTHOR: Molodchinin, Ye. V.; Tsyper, V. A.; Markin, M. G.

EWP(z)/EWP(b)/EWP(l)/  
EWA(c)/ETC(m) IJP(c)  
MJW/JD/HW

ORG: none

TITLE: The equipment and technological lubrication for the hot rolling of tubes of  
AMg6 aluminum-magnesium alloy

44.55 17 27  
SOURCE: Tsvetnyye metally, no. 12, 1965, 74-76

TOPIC TAGS: aluminum base alloy, magnesium alloy, hot rolling, metal tube, lubricant  
/ AMg6 Al-Mg alloy

ABSTRACT: Since the alloy AMg6 displays highest plastic properties in the temperature  
range 120-220°C, the rolling of tubes from this alloy is best performed on maintain-  
ing these temperatures over the area of deformation. In this connection the authors  
describe a method of stabilizing rolling technology by preheating the skelp to 100-  
150°C in an induction heater mounted directly on the KhPT type tube mill. The low-  
frequency induction-heating installation, operating on industrial-frequency current,  
consists of an inductor, a 300-kva stepdown transformer, a capacitor battery, a start-  
-up panel, and busbars. The inductor itself (Fig. 1) represents a solenoid coil wound  
in two layers of rectangular copper tube 14x14 directly on circular stainless-steel  
liner 1. Insulation 2 of the 23 turns of the coil is of herringbone tape impregnated

Card 1/3

UDC: 669.715:621.771.2

L 13284-66  
ACC NR: AP6001105

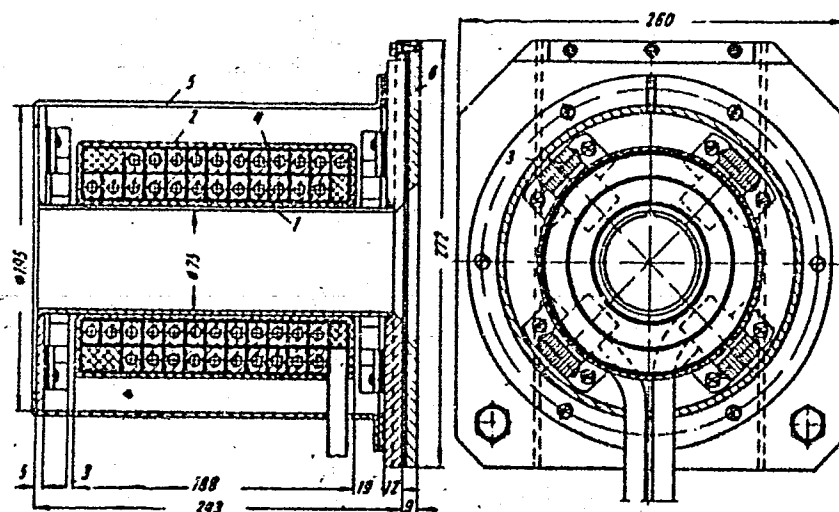


Fig. 1. Inductor for hot rolling of tubes in KhPT-75 tube mill

Card 2/3

L 13284-66

ACC NR: AP6001105

with bakelite varnish. To reduce magnetic leakage, four magnetic circuits are installed over the outside diameter of the inductor. The magnetic circuits and inductor winding 4 are insulated against lubricant contamination by housing 5 made of stainless sheet steel. The inductor is affixed to the bed of the rolling mill by means of plate 6. During rolling the friction of skelp at joints leads to the continual formation of metal chips which, unless promptly washed away by the lubricant, may enter the zone of deformation and adhere to the tools, thus causing imprints on the tubes. In this particular case the lubricant must be preheated to 60-80°C before applying it to the deformation zone. The authors tested a large number of the lubricants most suitable for operation in the temperature range 100-200°C. Unfortunately, so far not one has completely met the requirements, since at these temperatures heavy cylinder oils decompose and smoke and, moreover, are difficult to remove from the inside and outside tube surfaces. As for the spindle oil used for the cold rolling of tubes in tube mills, if applied in cold state it causes the cooling of the preheated skelp and hence the cracking of the tubes. The industrial introduction of the warm rolling of tubes of high-strength Al-Mg alloys has resulted in increasing by 30-40% the productivity of KhPT tube mills as well as in increasing by 5-7% the proportion of defect-free tubes. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 3/3

VENDT, V. P., TSYPEROVYCH, A. A.

Tyrosine

Spectrographic investigation of changes in the reactivity of tyrosine groups in seous and ovular proteins during denaturation. Ukr. biokhim. zhur. 22, No. 1, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 ~~1953~~, Uncl.



TSYPEROVICH, A. S.

Tsyperovich, A. S. "On the mechanism of the denaturation of proteins, 3: The intermittent character of the thermal denaturation of serous and egg albumins", Ukr. biokhim. zhurnal, 1949, No. 1, p. 44-55, (In Ukrainian, resume in Russian), - Bibliog: 15 items.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

TSYPKIN, Ya.Z.

\*\*\*\*\*

Criterion of the absolute stability of pulse automatic systems  
with monotone characteristics of the nonlinear element. Dokl.  
AN SSSR 155 no. 5:1029-1032 Ap '64. (MIRA 17:5)

1. Institut avtomatiki i telemekhaniki AN SSSR. Predstavleno  
akademikom V.S.Kulebakinyam.

118

CA

Hydration and electric symmetry of molecules of denatured and natural egg albumin. O. D. Kurilenko and A. S. Tsyperovich. *Doklady Akad. Nauk S.S.S.R.* 68, 349-52 (1940). The dielec. const. of egg albumin denatured with urea at 20° differs from that of native albumin especially at wavelengths of 25-30 m., being some 10% lower, while in 22-30 m. region it is 3-5% higher. Change of optical activity with increased extent of denaturation is linear. The increased dielec. const. at shorter wavelengths is probably assocd. with liberation of bound water. Conclusion apparently supported by the simultaneous change of slope of the optical activity and extent of denaturation curves. The relaxation period is essentially identical for the natural and the denatured states and the mol. wt. (36,000) is unchanged. The difference in the changes of dielec. const. cannot be correlated at this time with the progressive and smooth variation of optical activity. G. M. Kosolapoff

TSYNOVNIKOV, A.S.; FILIPPOVA, A.A.

Selection of samples and the indices of coke properties.  
Standartizatsiia 28 no.3:31-36 Mr'64. (MIRA 17:5)

VENDT, V. P., TSYTEROVYCH, A. S.

Tyrosine.

Spectrographic investigation of changes in the reactivity of tyrosine groups in serous and ovular proteins during denaturation. Ukr.biokhim.zhur. 22 no. 1, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1953? Uncl.

1. TSYPEROVYCH, A. S.
2. USSR (600)
4. Proteins
7. Mechanism of the denaturation of proteins. Part 5. Quasichemical equilibria in the denaturation of globular protein by urea, Ukr. biokhim. zhur., 24, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

USSR/Chemistry - Proteins

11 Mar 52

"Completeness of Transformation of the Protein Molecule During Denaturation," V. A. Belitsky, A. S. Tsyperovich, Inst of Biochem, Acad Sci Ukrainian SSR

"Dok Ak Nauk SSSR" Vol LXXIII, No 2, pp 257-260

New data supporting the essential similarity of the denaturation process of protein under all conditions were obtained by immunochem methods at the Inst of Biochem, Acad Sci Ukrainian SSR. In the denaturation of egg albumin by such agents as heat, alc, salicylate rhodanide, and copper ions, protein

214727

prems are obtained which by antigenic specificity contrast sharply with natural albumin, but are similar among themselves. A fundamental qual change in the macrostructure of the protein mols during its denaturation takes place, but the intermediate compn (apparently due to unstability of this stage) is not detected by ordinary methods. The ppt nature of the transformation attests to the fact that folding of polypeptide chains in the globule is produced by bonds that are mutually interdependent.

214727

TSYPEROVICH, A. S.

TSYPEROVICH, A. S.

"Investigation of the Denaturation and Stabilization of Globular Proteins."  
Dr Biol Sci, Laboratory of Enzymes, Inst of Biochemistry, Acad Sci USSR, Kiev,  
1954, (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (16).



*TSYPEROVICH, A.S.*  
TSYPEROVICH, A.S.

Conference on the problem of proteins. Ukr. biokhim. zhur. 26 no.4:  
467-474 '54. (MIRA 8:3)  
(Proteins)

TSYPEROVICH, A.S.;LOSEVA, A.L.

Mechanism of protein denaturation. Report no.6: Denaturation of globular proteins without changing their viscosity and optical rotation. Ukr. biokhim. zhur. 27 no.4:494-502 '55. (MLRA 9:3)

1. Institut biokhimii Akademii nauk Ukraini'koi RSR, Kiiiv.  
(PROTEINS)

TSYPEROVICH, A.S.

Mechanism of the denaturation of proteins; effect of formaldehyde and ether on the resistance to denaturation of globular proteins. Vop. med.khim. 2 no.3:169-174 My-Je '56. (MLRA 9:10)

1. Institut biokhimii AN USSR, Kiev.

(PROTEINS,

denaturation, eff. of formaldehyde & ether on resist.  
(Rus))

(FORMALDEHYDE, effects,

on protein resist. to denaturation (Rus))

(ETHER, ETHYL, effects,

same).

**TSYPEROVICH, A.S.; LOSEVA, A.L.**

**Mechanism of denaturation of proteins: new demonstration of the intermittent nature of denaturation of globular proteins. [with English summary in insert] Biokhimiia, 21 no.1;53-63 Ja-F '56. (MLRA 9:7)**

**1. Institut biokhimii Akademii nauk USSR, Kiyev.**

**(PROTEINS,**

**denaturation, intermittent nature of denaturation of globular proteins (Rus))**

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757320003-3

TOYEROVICH A S

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757320003-3"

TSYPEROVICH, A.S.; LOSEVA, A.L.

Mechanism of the denaturation of proteins; properties of globular protein stabilized by the action of denaturing factor. Biokhimiia 21 no.5:546-556 S-O '56. (MLBA 9:12)

1. Institut biokhimiia Akademii nauk USSR, Kiev.  
(EGG WHITE,  
ovalbumin, stabilization by denaturing factor (Rus))

TSYPEROVICH, A.S. (Kiyev)

Denaturation of globular proteins. Usp.khim.25 no.9:1173-1193  
S '56. (MLRA 9:11)  
(Proteins)

TSYPEROVICH, A.S.; LOSEVA, A.L.

Mechanism of protein denaturation. Report no.8: Materials on the characteristics of protein denaturation and the transformations connected with it. Ukr.biokhim.zhur. 28 no.3:265-277 '56. (MLRA 9:10)

1. Institut biokhimii Akademii nauk Ukrainiskoy SSR, Kiyev.  
(PROTEINS) ♦



TSYPEROVICH, A.S.

LOSEVA, A.L.; TSYPEROVICH, A.S.

Mechanism of protein denaturation. Part 10. The effect of fatty acid anions on the denaturation stability of globular proteins. Koll.zhur. 19 no.2:222-227 Mr-Apr '57. (MLBA 10:5)

1. Institut biokhimii AN USSR, Kiev.  
(Proteins) (Fatty acids)

TSYPEROVICH, A.S. [TSyperovych, O.S.]; AVDEYEV, V.G. [Avdieiev, V.H.]

A simplified method for the determination of crystalline  
chymotrypsinogen and alpha-chymotrypsin. Ukr. Biokhim. zhur.  
36 no.3:454-461 '64. (MIRA 17:10)

1. Institut biokhimii AN UkrSSR, Kiyev.

VEREMEYENKO, K.N. [Veremilenko, K.M.]; TSYPEROVICH, A.S. [TSyperovych, O.S.]

Production of crystalline trypsin for parenteral administration  
and the study of some of its properties. Ukr. biokhim. zhur. 33  
no.1:32-36 '61. (MIRA 14:3)

1. Institute of Biochemistry of the Academy of Sciences of the  
Ukrainian S.S.R. and the Department of Biochemistry of the Medical  
Institute, Kiev.

(TRYPSIN)

TSYPEROVICH, A.S. [TSyperovych, O.S.]

\*Diffuse salting-out of proteins\* by M.V.Zelenskii. Reviewed by  
O.S.TSyperovych. Ukr. biokhim. zpur. 32 no.5:742-769 '60.

(PROTEINS)

(SALTING-OUT)

(MIRA 14:1)  
(ZELENSKII, M.V.)

TSYPEROVICH, A.S. [TSyperovych, O.S.]; LOSEVA, A.L. [Losieva, A.L.]

Role of amino groups in the macrostructure of proteins. Ukr. biokhim.  
zhur. 32 no.4:491-506 '60. (MIRA 13:9)

1. Institut biokhimii AN USSR, Kiyev.  
(AMINO GROUP) (PROTEINS) (ACETYLATION)

TSYPEROVICH, A.S. [TSyperovych, O.S.]

Denaturative transformations of the protein molecule as a result of  
modification of one functional group. Ukr.biokhim.zhur. 32 no.2:  
173-191 '60. (MIRA 13:11)

1. Institute of Biochemistry of the Academy of Sciences of the  
Ukrainian S.S.R., Kiyev.  
(PROTEINS)

TSYPEROVICH, A.S. [TSyperovych, O.S.]; LOSEVA, A.L. [Losieva, A.L.]

Stabilization of pepsin, trypsin, and chymotrypsin by amino  
acids. Ukr.biokhim.zhur. 32 no.1:25-43 '60. (MIRA 13:6)

1. Institute of Biochemistry of the Academy of Sciences of the  
Ukrainian S.S.R., Kiyev.

(PEPSIN)

(TRYPSIN)

(CHYMOTRYPSIN)

TSYPEROVICH, A.S., doktor biol.nauk

Natural catalysts. Nauka i zhizn' 27 no.3:32-36 Mr '60  
(ENZYMES) (MIRA 13:6)



TSYPKROVICH, A.S. [Tsyperovych, O.S.]

Mechanism of protein denaturation. Report No.9: Denaturation  
stabilization of some enzyme proteins and their stability in  
urea solutions. Ukr.biokhim.zhur. 31 no.3:361-382 '59.  
(MIRA 12:9)

1. Institute of Biochemistry of the Academy of Sciences of  
the U.S.S.R., Kiev.  
(PROTEINS) (UREA) (ENZYMES)

TSYPEROVICH, A.S.

Nature of the "denatured stabilization" of globular proteins.  
Koll.zhur. 21 no.1:119-125 Ja-F '59. (MIRA 12:5)

1. Institut biokhimi AN USSR, Kiyev.  
(Albumin) (Colloids)

TSYPEROVICH, A.S.

Inactivation of chymotrypsinogen by nitric acid. Dokl. AN SSSR  
122 no.6:1073-1075 0 '58. (MIRA 11:12)

1. Institut biokhimii AN USSR. Predstavleno akademikom A.V.  
Palladinym.

(CHYMOTROPSINOGEN) (NITRIC ACID)

TSYNOVNIKOV, A.S.; SHEMERYANKIN, B.V.; SHVARTS, S.A.; BOGOYAVLENSKIY, K.A.

Determining size distribution of coke using sieves with square and round perforations. Koks i khim. no.12:25-28 '58. (MIRA 11:12)

1. Vostochnyy uglekhimicheskiy institut (for TSynovnikov, Shemeryankin).
2. Ukrainskiy uglekhimicheskiy institut (for Shvarts, Bogoyavlenskiy).  
(Coke)